



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,161	02/27/2006	Christian Mueller	ITC-331US	2080
23122	7590	02/24/2009	EXAMINER	
RATNERPRESTIA			LOPEZ, FRANK D	
P.O. BOX 980			ART UNIT	
VALLEY FORGE, PA 19482			PAPER NUMBER	
			3745	
			MAIL DATE	
			DELIVERY MODE	
			02/24/2009	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/529,161

Applicant(s)

MUELLER, CHRISTIAN

Examiner

F. Daniel Lopez

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 21 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-14, 16, 17, 19, 21 and 23 is/are rejected.
- 7) ☐ Claim(s) 15, 18, 20, 22 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/24/05 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

Applicant's arguments filed November 21, 2008, have been fully considered but they are not deemed to be persuasive.

Applicant's arguments with respect to claims 1-14, 16, 17, 19, 21 and 23 have been considered but are deemed to be moot in view of the new grounds of rejection.

Applicant argues that regulator 28 vents fluid to the outside world, since regulator 28 is a very common type of regulator, as described by either patent number 4,589,815 or Hydraulics and Pneumatics. The examiner understands that there are regulators that do what Applicant argues the valve 28 does. But the valve 28 is drawn as a pressure reducer, not as a regulator. The valve 28 is drawn as being connected between a pressure supply 27 and an input line (25) to the actuator, with no connection to the outside. The valve 28 is biased by a spring to an open position and biased by a pressure in the input line to a closed position. There is no third position shown where the input line is vented to the outside. Because on the difference between the specification and the drawings, it is unclear what is the correct interpretation of the valve 28. That is why, in addition to the objection to the specification, there is an objection to the drawings.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the pressure regulator maintaining a pressure by allowing feeding or allowing removal of fluid from a compartment responsive to change of pressure in the compartment (claim 1 line must be shown or the feature(s) canceled from the claim(s)). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following:

Page 12 paragraph 1 states that "if test head 3 is pressed down..., the pressure in the holding compartment 23 increases. Pressure control device 26 recognizes this pressure increase and diverts fluid out of fluid-holding compartment 23 until the original target value is reached". It is understood that as the pressure in the compartment increases, there is fluid flow out of the compartment and into the lines connected to the valves 28, 29 and 30. Since the pressure in the lines is held constant by regulator 28, a flow out of the compartment into the lines will cause an increase in pressure in the lines. There is no mechanism shown for decreasing this pressure. Therefore, it is unclear how the fluid is diverted and how the pressure is reduced back to the target pressure.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 1-5, 11, 16, 19, 21 and 22 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 line 10 "with" should be --within--.

In claim 11 line 2 "applying an external force" seems to be the same limitation as step b of claim 9 (line 4-5).

In claim 16 and 19 line 2 "can be adjusted" is not a positive limitation.

Claims not specifically mentioned are indefinite, since they depend from one of the above claims.

Claim Rejections - 35 USC § 102

Claims 6-13 are rejected under 35 U.S.C. § 102(b) as anticipated by Nagai. Nagai discloses a positioning apparatus and method of positioning comprising a lifting device for vertically moving a load and including a threaded drive mechanism (including 12) operated by a drive apparatus (13) and a pneumatic compliant coupling mechanism including a first cylindrical member (16) and a piston (17) defining a fluid compartment (21) therebetween, in the first cylindrical member; wherein a pressure regulator (14) maintains a pressure in the fluid compartment, such that the load is suspended in a substantially weightless condition; wherein the pneumatic compliant coupling mechanism is above and secured to the drive apparatus

Claim Rejections - 35 USC § 103

Claims 1-5, 14 and 17 are rejected under 35 U.S.C. § 103 as being unpatentable over Nagai in view of Harman et al. Nagai discloses all the elements of claims 1-5, as discussed above and further including that there is a frame for the load; and that there is a position sensor (e.g. column 5 line 65); but does not disclose that the lifting device raises and lowers the first cylindrical member.

Harman et al teaches, for a positioning apparatus comprising a compliant coupling mechanism including a first cylindrical member (2) and a piston (3, 4) defining a fluid compartment (A, O) therebetween, in the first cylindrical member; that the piston is fixed and the first cylindrical member is moved.

Since the compliant coupling mechanisms of Nagai and Harman et al are interchangeable in the positioning art; it would have been obvious at the time the invention was made to one having ordinary skill in the art to make the first cylindrical member of Nagai movable and the piston fixed, as taught by Harman et al, since one having ordinary skill in the art would have been able to carry out such a substitution and the resulting combination would predictable work in the same manner. The combination of Nagai and Harman et al would result in the pistons (second cylindrical members) being attached to a frame and the arm (18) being attached to a different type of first cylindrical member (like that of Harman et al), with the threaded nut s (31) attached to the first cylindrical member.

Conclusion

Claims 15, 18, 20, 22 and 24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 16, 19, 21 and 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is 571-272-4821. The examiner can normally be reached on Monday-Thursday from 6:00 AM –4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on 571-272-4820. The official fax number is 571-273-8300. Any inquiry of a general nature should be directed to the Help Desk, whose telephone number is 1-800-PTO-9199.

/F. Daniel Lopez/

F. Daniel Lopez
Primary Examiner
Art Unit 3745
February 24, 2009